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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/578,773

05/09/2006

Shinichi Todoroki

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EXAMINER

ROJAS, OMAR R

ART UNIT

PAPER NUMBER

2874

MAIL DATE

DELIVERY MODE

06/26/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/578,773

Applicant(s)

TODOROKI, SHINICHI

Examiner

Omar Rojas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 May 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>05/092006,09/19/2006</u> | 6) <input checked="" type="checkbox"/> Other: <u>Detailed Action</u> |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The prior art documents submitted by Applicant(s) in the Information Disclosure Statement(s) ("IDS") filed on May 9, 2006 and September 19, 2006 have all been considered and made of record (note the attached copy of form(s) PTO-1449).

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "retention portion" (claim 3) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet"

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pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

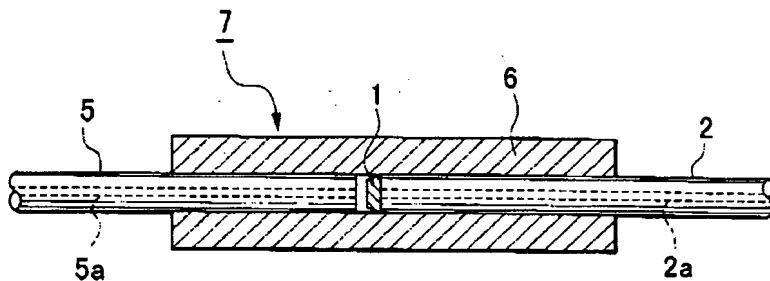
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1, 2, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patent No. US 6,218,658 B1 to Taneda et al. ("Taneda") in view of Patent No. 5,191,167 to Beyer.**

In re claim 1, Taneda discloses an optical fuse system (Figures 1-3) comprising:

a medium 1 in which a light-emitting end of a first optical fiber waveguide 2 is coupled to a light-incident end of a second optical fiber waveguide 5 across said medium 1, said medium 1 being transparent to light passing through said medium. See Taneda at columns 6-7 for further details. Fig. 3 of Taneda is reproduced below.

FIG.3



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Thus, Taneda only differs from claims 1 and 6 in that Taneda does not disclose a light-absorbing body adapted to absorb a portion of said light and generate heat or ignite to explode the medium, said light-absorbing body being disposed in contact with an outer peripheral surface of said medium in such a manner as to allow a part of light emitted from said light-emitting end into said medium to reach said light-absorbing body.

Beyer, on the other hand, does disclose a light-absorbing body 17 adapted to absorb a portion of light and generate heat or ignite to explode a medium 12, said light-absorbing body 17 being disposed in contact with an outer peripheral surface of said medium 12 in such a manner as to allow a part of light emitted from said light-emitting end into said medium 12 to reach said light-absorbing body 17. See columns 1-2 of Beyer for further details. Fig. 1 of Beyer is reproduced below.

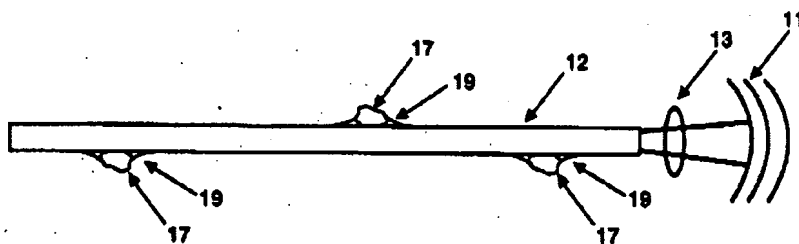


Fig. 1

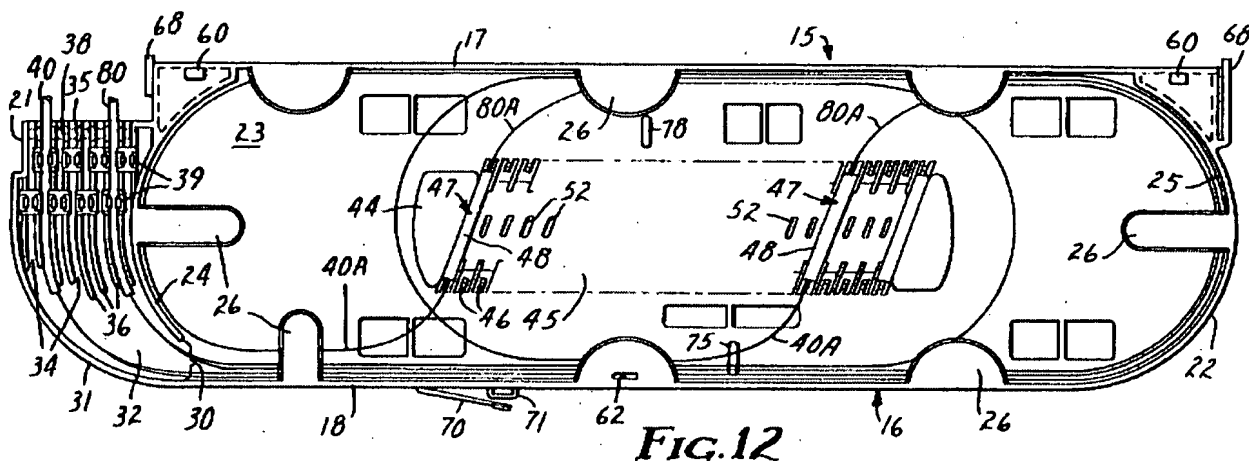
The motivation for combining Beyer with Taneda is mentioned at column 1, lines 11-16 of Beyer (i.e., for use in explosives or propellants). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to obtain the invention specified by claims 1 and 6 in view of Taneda combined with Beyer.

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In re claim 2, the medium 12 of Beyer can be tapered as seen in Fig. 2. Therefore, when Teneda is combined with Beyer in the same manner as specified with respect to claims 1 and 6, all the limitations of claim 2 are also met.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Teneda combined with Beyer as applied to claims 1 or 2 above, and further in view of Patent No. 5,074,635 to Justice et al. ("Justice").

In re claim 3, Teneda combined with Beyer further differs from the claim in that neither reference teaches a retention portion for fixing the optical fiber, said retention portion being disposed away from an interface between said medium and said light-emitting or light-incident end comprised of said optical fiber, in such a manner as to allow a zone of said optical fiber between said retention portion and said interface to be bent. Justice, however, teaches a retention portion 24/26 being disposed away from an interface 47 between a medium 80A and a light-emitting or light-incident end comprised of an optical fiber 40A, in such a manner as to allow a zone of said optical fiber 40A between said retention portion 24/26 and said interface 47 to be bent. Figure 12 of Justice is reproduced below.



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One motivation for combining Justice with Teneda in view of Beyer would be to protect and store the optical fibers disclosed by Teneda and Beyer. *See* the Abstract of Justice. Therefore, when Justice is served with Teneda in view of Beyer, it would have also been obvious to one of ordinary skill at the time of the claimed invention to obtain the invention specified by claim 3.

Conclusion

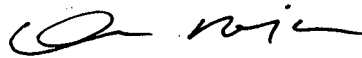
7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Publication No. US 2007/0127870 A1 to Oron et al. discloses a light absorbing body that surrounds the peripheral surface of a transparent medium and is used to heat up said medium.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Omar Rojas whose telephone number is (571) 272-2357. The examiner can normally be reached on Monday-Friday (9:00PM-5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rod Bovernick, can be reached on (571) 272-2344. The official facsimile number for regular and After Final communications is (571) 273-8300. The examiner's RightFAX number is (571) 273-2357.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Omar Rojas
Patent Examiner
Art Unit 2874

or
June 15, 2007



Rodney Bovernick
Supervisory Patent Examiner
Technology Center 2800